# Constant Expressions Solutions

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# Constant expression

- What is meant by the term "constant expression"?
  - A constant expression has a value that is evaluated at compile time and which cannot change
- Give some examples of constant expressions
  - A literal
  - A value computed from literals
  - A value computed from other constant expressions

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# Constant expression variables

- Can a variable be a constant expression? Write a simple program to illustrate your answer
  - A variable can be a constant expression if
  - It is initialized by a constant expression
  - and it cannot subsequently be modified

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# constexpr keyword

- What is the significance of the constexpr keyword?
  - The constexpr keyword indicates that an expression is a constant expression
  - An expression which is valuated at compile time and cannot change

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# constexpr vs const

- What is the difference between "const" and "constexpr"?
  - const means that the value will not be changed
  - A const variable can be initialized from a value which is only known at runtime
  - constexpr means that the value is also known at compile time
  - A constexpr variable must be initialized from a value which is known at compile time

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